UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,984	02/20/2002	Erol Basturk	P4522	7502

24739 7590 08/09/2007		EXAMINER
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ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/079,984	BASTURK, EROL
	Examiner	Art Unit	
	Venkatesh Haliyur	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 February 2007</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *25-39* is/are allowed.

6)☒ Claim(s) *1-19, 21-24* is/are rejected.

7)☒ Claim(s) *20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   The amendment filed on 02/26/2007 under has been considered but is ineffective

to overcome Dobbins et al reference for claims 1-24. However, the amendment filed on

02/26/2007 is sufficient to overcome the rejection of claims 25-39 communicated via

previous office action and hence the rejection of claims 25-39 has been withdrawn.

Rejection follows.

2.   Claims 1–39 are pending in the application.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 1-19,21-24 rejected under 35 U.S.C. 102(b) as anticipated by Dobbins et

al. [US Pat: 5,751,971].

Regarding claim 1, Dobbins et al. disclosed an apparatus and method in "Internet Protocol (IP) Work Group Routing", a communication system **(router, item 11 of Fig 2)** having a plurality of physical communication ports **(items 12A, 12B of Fig 2)**, a hierarchical bond **(association of network and subnet levels, col 5 lines 47-67)** communication interface comprising **(col 2, lines 41-63)**: a logical interface **(IP interface)** as a component of the bond at a top level **(network/high level)** of the hierarchy defining a plurality of data links **(col 3, lines 1-37)**, and a first subjugate logical interface at a second level **(subnet/low-level IP interface, items 13A and 13B of Fig 2)** of the hierarchy as a component of the top-level logical interface defining a portion of the data links as defined in the logical interface at the top level of the hierarchy **(physical and logical interface associated with workgroups, col 5, lines 47-67, col 6, lines 1-28)**.

Regarding claims 2-4,8-10, Dobbins et al. disclosed the top level and the second level comprising one or more physical interfaces **(items 12A, 12 B of Fig 2)** for multilevel networks **(items 13 and 14 of Fig 2, col 3, lines 1-5,col 4, lines 5-11)** and one or more levels of the hierarchical bond and data is routed by addressing the bond, which then uses logical and physical components **(IP address and physical address)** of the hierarchy for data transmission **(association of network and subnet levels, col 5 lines 47-67)**.

Regarding claims 5-6,11-12, Dobbins et al. disclosed a data router **(item 11 of Fig 2)** in a data packet network and data packet network is the Internet network **(item 16 of Fig 2, col 5, lines 47-52)**.

Regarding claim 7, Dobbins et al. disclosed a communication system **(Router,
item 11 of Fig 2)** having a plurality of physical communication ports **(items 12A, 12B of
Fig 2, col 2, lines 41-67,col 3, lines 1-37)**, a method for grouping ports in data routing
(col 2, lines 41-67), comprising the steps of defining a logical interface at a top level
(high level network IP address) of a hierarchical bond by grouping a plurality of ports;
defining a first subjugate logical interface **(low level/subnet IP address)** at a second
level of the hierarchical bond as an element of the top-level logical interface by defining
a portion of the plurality of ports as defined in the logical interface at the top level of the
bond; and routing data by addressing the top-level bond **(single IP address to many
physical interfaces)**, which then uses logical and physical ports and interfaces of the
hierarchy **(IP and Physical addresses, col 3, lines 1-5)** for data transmission **(Fig 2,
col 5, lines 47-67, col 6, lines 1-28)**

Regarding claims 13, Dobbins et al. disclosed a communication system, **(Router,
item 11 of Fig 2)**, a control system for managing links in data routing, comprising:
one or more hierarchical bonds **(association of network and subnet levels, col 5
lines 47-67)** comprising a logical interface at a top level including a plurality of data
links; a first subjugate logical interface at a second level of the hierarchical bond as an
element of the top-level logical interface **(network/subnet IP interface, items 13A and
13B of Fig 2, col 3, lines 1-37)**; a first portion recording **(lookup table)** availability
status of the hierarchical bonds **(status, item 36 of Fig 3)**, for routing of data by
monitoring characteristics of both logical and physical interfaces and data links of the

hierarchical bonds **(col 10, lines 9-65)** and a second portion providing configuration

input for use in the monitoring by the first portion **(Figs 2-6, col 6, lines 1-67)**

Regarding claims14-15, Dobbins et al. disclosed thresholds **(begin and end IP**

address, item 52 and 53 of Fig 5) are configured for an interface characteristic through

the second portion for individual ones of the logical interfaces **(IP interface)**, a logical

interface considered up **(row status, active)** having a determined amount of data links

with sufficient bandwidth or down **(row status, not ready/not in service)** having a

determined amount of data links with insufficient bandwidth according to the current

threshold value of the characteristic for the interface in relation to the value of the

configured threshold **(IP address range)** and the threshold configured for a logical

interface is an up threshold **(begin IP address)** such that the logical interface is

considered up **(active)** if the instant value of the threshold characteristic for the logical

interface has the configured relationship to the configured value of the up threshold

monitoring **[Figs 3-6, col 6, lines 45-67, col 7,1-67, col 8, lines 1-67].**

Regarding claims 16-17, Dobbins et al disclosed a threshold set for a logical

interface **(IP interface)** is a down threshold such that that the logical interface is

considered down **(row status, not ready)** if the instant value of the threshold

characteristic for the logical interface has the configured relationship to the configured

value of the down threshold and two threshold values differing in magnitude **(begin and**

end IP address) are configured for an individual one of the logical interfaces, one being

an up threshold **(begin IP address)**, and the other a down threshold **(end IP address)**,

such that the logical interface may be considered up **(row status, active)** even though it

no longer meets the configured relationship of the up threshold, but does not yet meet the configures relationship for the down threshold **(interface invalid)**, or may be considered down **(row status, not ready/not in service)** even though the threshold characteristic for the interface no longer meets the configured relationship for the down threshold, but does not yet meet the configured relationship for the up threshold **[Figs 3-6, col 6, lines 45-67, col 7,1-67, col 8, lines 1-67].**

Regarding claims 18-19, Dobbins et al. disclosed that the first portion periodically evaluates the status of the hierarchical bonds for routing data by determining the up or down status of each bond **(row status)**, beginning with the lowest level in the hierarchy **(subnet/host)** and proceeding upward to the highest level **(network)** of the bond and the second portion the second portion comprises one or more of a graphical user interface **(user configured entries)**, a control line interface, for configuring bond characteristics, or an SNMP interface for configuring bond characteristics. **[Figs 3-6, col 5, lines 60-67, col 6, lines 1-29].**

Regarding claims 21-24, Dobbins et al. disclosed that the communication system comprises a plurality of nodes **(router, physical networks having hosts, internet, items 11, 13A, 13B & 14 of Fig 2)**, each having a plurality of physical ports **(physical interfaces items 12A, 12B, 15 of Fig 2)** wherein bonds are defined for individual nodes using the ports specific to the nodes **(different IP addresses for networks and internet)**, and the control system **(router, item 11 of Fig 2)** comprises a plurality of first portions each specific to an individual one of the nodes **(physical network and hosts)**, and a common second portion providing configuration input to the plurality of nodes **(IP**

address of the network portion, col 5, lines 44-67) and the characteristic for

thresholds associated with an interface **(begin and end IP addresses)** is the up **(row**

status, active) or down **(row status, not ready/not in service, col 6, lines 1-67)** state

of components of the interface, expressed as a number up **(1, in item 38 of Fig 3)** or a

number down **(0, in item 38 of Fig 3)** and the characteristic for thresholds associated

with an interface is a percentage of the number of components of the interface having

an up or a down state **(averaging over an interval, col 7, lines 1-67)** and the

characteristic for thresholds is a fixed bandwidth value and the characteristic for

thresholds is a percentage of potential bandwidth **[Figs 2,3-6, col 5, lines 44-67, col 6,**

lines 1-67, col 7, lines 1-67, col 8, lines 1-67, col 9, lines 1-25].

Allowable Subject Matter

5.   Claim 20 is objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the

base claim and any intervening claims, because the prior art of record does not teach

the control system of the currently amended claim 13, comprising a plurality of nodes

each having a plurality of physical ports, wherein bonds are defined for individual nodes

using the ports specific to the nodes, and the control system comprises a plurality of first

portions each specific to an individual one of the nodes, and a common second portion

providing configuration input to the plurality of nodes.

6.   Claims 25-39 are allowed as prior art of record does not teach the limitations as

in amendment for managing links in data routing, the control system having a first

portion recording availability status of the hierarchical bonds for routing of data by

monitoring status either up or down of both logical and physical interfaces and ports of

the at least one hierarchical bond, and a second portion providing configuration input for

use in the monitoring by the first portion.

Response to Arguments

7.   Applicant's arguments filed on 02/26/2007 have been fully considered but they

are not persuasive for claims 1-19,21-24. With respect to applicant's argument that

Dobbins et al does not teach having bonds within bonds and true hierarchical bonding

structure which was not known at the time of the invention, Examiner respectfully

traverses the applicant(s) to col 5, lines 60-67, col 6, lines 1-28, where Dobbins et al

disclosed an hierarchical tree structure that associates (binds) the physical and logical

interfaces for workgroup subnets and hence Dobbins et al establishes a hierarchical

tree bonding structure in their invention.

Conclusion

8.   Any inquiry concerning this communication or earlier communications should be

directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616.

The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If

attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Edan Orgad can be reached @ (571)-272-7884. Any inquiry of a general

nature or relating to the status of this application or proceeding should be directed to the

group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

9.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197(toll-free).

Venkatesh Haliyur

Patent Examiner

EDAN ORGAD
PRIMARY PATENT EXAMINER